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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,506	09/24/2001	Olli Salmela	413-010522-US(PAR)	2192

2512 7590 02/28/2003

PERMAN & GREEN  
425 POST ROAD  
FAIRFIELD, CT 06824

EXAMINER
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LEE, BENNY T

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

937,506



Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE

NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	6

DATE MAILED:

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

- ☐ This application has been examined ☒ Responsive to communication filed on 2 Dec 2002 ☐ This action is made final.
- A shortened statutory period for response to this action is set to expire three (3) month(s), days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS APPLICATION

1. ☒ Notice of References Cited by Examiner, PTO-892.  
2. ☒ Notice of Art Cited by Applicant, PTO-1449.  
3. ☐ Information on How to Effect Drawing Changes, PTO-1474.  
☐ Notice re Patent Drawing, PTO-948.  
☐ Notice of Informal Patent Application, Form PTO-152

Part II SUMMARY OF ACTION

1. ☒ Claims 1-6, 8-10 are pending in the application.  
Of the above, claims 7 are withdrawn from consideration.  
2. ☒ Claims 7 have been cancelled.  
3. ☐ Claims 1-4, 6 are allowed.  
4. ☒ Claims 5, 8-10 are rejected.  
5. ☒ Claims 5, 8-10 are objected to.  
6. ☐ Claims 5, 8-10 are subject to restriction or election requirement.  
7. ☐ This application has been filed with informal drawings with acceptable for examination purposes until such time as allowable subject matter is indicated.  
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.  
9. ☒ The corrected or substitute drawings have been received on 2 Dec 2002. These drawings are ☐ acceptable; ☒ not acceptable (see explanation).  
10. ☒ The ☐ proposed drawing correction and/or the ☒ proposed additional or substitute sheet(s) of drawings, filed on 2 Dec 2002, has (have) been ☐ approved by the examiner. ☒ disapproved. The examiner (see explanation).  
11. ☐ The proposed drawing correction, filed 2 Dec 2002, has been ☐ approved. ☒ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing corrections. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.  
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received.  
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 O.D. 11; 453 O.G. 213.  
14. ☐ Other

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The disclosure is objected to because of the following informalities: Note that a "Summary of the Invention" (including a subheading) should be provided for this application. Page 1, line 23, note that "the created structure" should be rephrased for clarity (e.g. --the resultant structure --). In the replacement paragraph starting at page 7, line 33, note that the amended limitation "towards the around cable 61" is vague in meaning and needs clarification. Appropriate correction is required.

The drawings are objected to because of the following: In all drawing figures, note that proper cross-hatching for all dielectric materials should be provided. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The following claims have been found objectionable for reasons set forth below:

In claim 5, note that "formed" should be rewritten as --defined-- for a better characterization.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ishikawa

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Note that fig. 2 discloses a transmission cable arrangement having a cavity (513) disposed within a substrate (1) and defined by opposing surfaces upon which the signal conductor (3) is disposed on a rectangular support (5) which is mounted in the cavity such that the surface of the signal conductor is parallel to and also positioned between the opposing surfaces of the substrate. Moreover, note that a ground layer (2) is disposed on one of the opposed surfaces of the substrate.

Regarding claim 4, note from Fig. 20 that the support (5) has a "T" shaped configuration.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa.

While the raised support has a "rectangular" shape, obviously alternate yet equivalent shapes (e.g. square, being a special case or "rectangular" would have been suggested.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa in view of Mooney et al (of record).

Ishikawa discloses the claimed invention except that it's signal conductors sit within the cavity in an "upright" rather than "inverted" manner.

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Mooney et al (e.g. Figs. 7A, 7B) disclose a signal conductor (56) disposed in a cavity (70) of a substrate (52) and further including a ground layer (58) arranged such that the signal conductor (56) and ground layer (58) constitute an inverted microstrip circuit.

Accordingly, it would have been obvious in view of the references, taken as a whole, to have alternatively realized the "upright" microstrip circuit of Ishikawa as an "inverted" microstrip circuit such as exemplarily taught by Mooney et al. Such a modification would have been obvious given the same field of endeavor of the references (i.e. both disclose locating a signal conductor within a cavity of a substrate relative to a ground layer as to realize a microstrip circuit), and thus would have suggested the compatibility of the proposed combination, thereby suggesting the obviousness thereof.

Applicant's arguments with respect to claims 1-3, 5, 6 have been considered but are moot in view of the new ground(s) of rejection.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bergstegt et al discloses a microstrip formed within a cavity of a substrate.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number (703) 308-4902.

# EXAMINER'S CASE ACTION WORKSHEET

SERIAL NUMBER 937506 AE                     

CHECK TYPE OF ACTION

DATE OF COUNT                     

<input checked="" type="checkbox"/> Non-Final Rejection	<input type="checkbox"/> Restriction/ Election Only	<input type="checkbox"/> Final Rejection
<input type="checkbox"/> Ex Parte Quayle	<input type="checkbox"/> Allowance	<input type="checkbox"/> Advisory Action
<input type="checkbox"/> Examiner's Answer	<input type="checkbox"/> Entry of Reply Brief	<input type="checkbox"/> Non-Entry of Reply Brief
<input type="checkbox"/> Notice of Defective Appeal Brief	<input type="checkbox"/> Interference SPE <u>                    </u> Approval for Disposal	<input type="checkbox"/> Suspension
<input type="checkbox"/> Allowance After Examiner's Answer	<input type="checkbox"/> SIR Disposal (use only after FAOM)	<input type="checkbox"/> Post-Allowance Comm.
<input type="checkbox"/> Miscellaneous Letter Without Response Period	<input type="checkbox"/> Miscellaneous Letter With Response Period	<input type="checkbox"/> Letter Requiring Formal Drawings
<input type="checkbox"/> Supplemental Action	<input type="checkbox"/> Notice of Non-Responsive Amendment	<input type="checkbox"/> Response to a Rule 312 Amendment
<input type="checkbox"/> Abandonment	<input type="checkbox"/> Express Abandonment  Date: <u>    </u> / <u>    </u> / <u>    </u>	<input type="checkbox"/> Abandonment after Examiner's Answer

Examiner's Name: BENNY T. LEE GAU:                     

PRIMARY EXAMINER  
ART UNIT 2817